

AMENDMENTS TO THE SPECIFICATION

Specification Amendment A

Please replace Paragraph 13 with the following amended paragraph. No new matter is believed added as the below paragraph is supported by at least originally filed Claims 1-11 and Claims 23-33 originally filed in parent application US App. No. 09/982,280.

[0013] The features, nature, and advantages of the present invention will become more apparent from the detailed description set forth below when taken in conjunction with the drawings in which like reference characters identify correspondingly throughout and wherein:

FIG. 1 is a diagram of a multiple-access OFDM-CDMA system capable of implementing various aspects and embodiments of the invention;

FIG. 2 is a simplified block diagram of an embodiment of a base station and two terminals;

FIG. 3 is a block diagram of an embodiment of a modulator that may be used for the downlink;

FIG. 4 is a block diagram of an embodiment of a demodulator that may be used for the downlink;

FIG. 5 is a block diagram of an embodiment of a modulator that may be used for the uplink;

FIG. 6 is a block diagram of an embodiment of a demodulator that may be used for the uplink;

FIG. 7 is a diagram of a power control mechanism that may be used to control the transmit power of a downlink or uplink transmission; and

FIG. 8 is a block diagram of a specific embodiment of a portion of the downlink and uplink power control mechanisms implemented at a terminal.

FIG. 9 illustrates example operations for recovering data in accordance with a specific embodiment.

FIG. 10 illustrates example operations for recovering data in accordance with some embodiments of the present invention.

Specification Amendment B

Please insert the following new paragraphs after Paragraph 117; the new paragraph will be numbered Paragraphs 118-119. No new matter is believed added as the below paragraphs are supported by at least originally filed Claims 1-11 and Claims 23-33 originally filed in parent application US App. No. 09/982,280.

[0118] FIG. 10 illustrates example operations (method 1000) for recovering data in accordance with some method embodiments of the present invention. Operations can begin, at 1005, by processing a received signal to provide data samples. At 1005, operations can include transforming the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples. At 1010, operations can include despreading the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes. At 1015, operations can include combining the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol. At 1020, operations can also include decoding demodulated symbols to provide decoded data.

[0119] Other operation features can also be included in method 1000. For example, at 1025, operations can include deconvolving the data samples with a cover code to provide deconvolved samples, wherein the transforming can be performed on the deconvolved samples. At 1030, operations can include discarding data samples corresponding to a cyclic prefix appended to each OFDM symbol. At 1035, operations can include transmitting received signals from a plurality of cells or sectors in the system. At 1040, operations can include estimating a response for the communication channel; each set of despreading coefficients can be derived based in part on a set of weights indicative of the estimated channel response. At 1045, operations can include estimating the channel response on a pilot included in the received signal. At 1050, operations can include estimating a quality of the received signal; and transmitting power control commands derived based on the estimated received signal quality. And at 1055, operations can include estimating received signal quality on a pilot included in the received signal.